

CLAIMS

1. Gear (1), particularly for a robot, having a drive shaft (7) and at least two parts (3, 4) rotatable relative to the latter and to one another, in which a movement of one part (3, 4) is removable on its side (3b, 4b) remote from the other part (4, 3), characterized in that at least one of the rotary parts (3) has a shaft (15) connected in non-rotary manner thereto and which projects at least to the other part (4, 3).
2. Gear according to claim 1, characterized in that the shaft (1) located on one part (3, 4) traverses the other part (4, 3) to its side (4b, 3b) remote from the one part (3, 4).
3. Gear according to claim 1, characterized in that the shaft (15) located on the one part (3, 4) is the drive of the sensor device (10) located in and/or on the other part (4, 3).
4. Gear according to claim 3, characterized in that the sensor device (10) is a monitoring device for determining and/or limiting the rotation parameters.
5. Gear according to claim 3, characterized in that the sensor device (10) has a stub shaft (12) guided in a receptacle (13) and determines the rotation angle between stub shaft (12) and receptacle (13).
6. Robot according to claim 5, characterized in that the receptacle (13) of the sensor device (10) is located on one part (3, 4) and the stub shaft (12) is connected in non-rotary manner to the shaft (15) located on the other part (4, 3).
7. Robot according to claim 3, characterized in that an optical sensor device (10) is provided.
8. Robot according to claim 3, characterized in that a magnetic sensor device (10), particularly a resolver is provided.
9. Robot according to claim 3, characterized in that an electrical or electromagnetic sensor device (10) is provided.
10. Robot according to claim 3, characterized in that a torque compensator connected to the sensor device (10) is provided for the robot rotation axis (2).
11. Gear according to claim 1, characterized in that the shaft (15) located on one part (3, 4) is subject to a torque.

12. Gear according to claim 11, characterized in that an auxiliary motor is provided on the shaft (15).
13. Gear according to claim 1, characterized in that the drive shaft (7) is a high speed side driven shaft of a drive motor (6) or is connectable thereto.
14. Gear according to claim 1, characterized in that the rotary parts (3, 4) are movable at a lower speed than the drive shaft (7).
15. Gear according to claim 1, characterized in that the shaft (15) is positioned coaxially to the rotation axis (2) of at least one of the parts (3, 4).
16. Gear according to claim 1, characterized in that the parts (3, 4) are positioned coaxially.
17. Gear according to claim 1, characterized in that the gear (1) is an in particular high speed reducing spur, bevel, worm or epicyclic gear.
18. Gear according to claim 1, characterized in that the gear (1) is a harmonic drive gear.
19. Gear according to claim 1, characterized in that the drive motor (6) is positioned centrally to the rotation axis (2) of at least one of the parts (3, 4).
20. Gear according to claim 1, characterized in that the drive motor (6) is positioned eccentrically to the rotation axis (2) of at least one of the parts (3, 4).
21. Gear according to claim 1, characterized in that the drive motor (6) is positioned under a finite angle with respect to the rotation axis (2) of at least one of the parts (3, 4).
22. Gear according to claim 21, characterized in that the drive motor (6) is placed approximately under a right angle with respect to the rotation axis (2) of at least one of the parts (3, 4).
23. Gear according to claim 1, characterized in that one part (3) is constructed as a gearbox and the other part (4) as a gear shaft.
24. Robot, characterized by at least one gear (1) according to one of the claims 1 to 23.